

INCH-POUND

MIL-T-27/138A
13 March 1991
 SUPERSEDING
 MIL-T-27/138
 31 JANUARY 1977

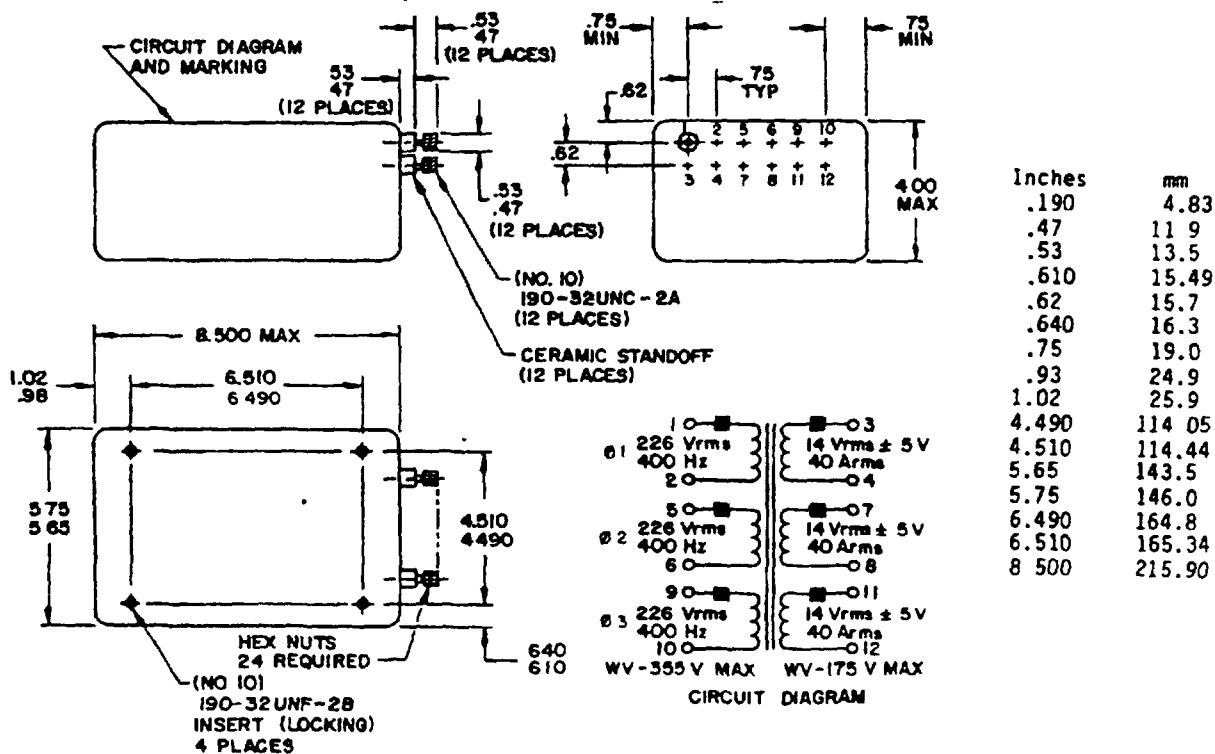
MILITARY SPECIFICATION SHEET

TRANSFORMER, POWER, STEPDOWN, 3-PHASE, TF4S03YY

(A) Inactive for new design after
the date of this specification.

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-T-27.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Tolerance on terminal position dimensions is $\pm .015$ (0.38 mm).
4. Marking shall be on the top of the case

FIGURE 1. Dimensions and configurations

(A) denotes changes

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REQUIREMENTS: (When numbers in parentheses, i e., (1-2) are used, they indicate the winding and the extreme terminals of the windings.)

Electrical ratings:

Primary power. 585 watts each phase.

Primary voltage: (1-2) (5-6) (9-10): 226 volts rms ± 5 percent, 400 Hz, 3-phase.

Secondary voltage: (3-4) (7-8) (11-12): 14 volts rms, 40 amperes rms $\pm .5$ volt.

DC resistance:

(1-2) (5-6) (9-10): 0.5 ohm maximum.
(3-4) (7-8) (11-12): 0.1 ohm maximum.

Working voltage:

(1-2) (5-6) (9-10): 335 volts maximum.
(3-4) (7-8) (11-12): 175 volts maximum.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle Continuous.

Case: Metal.

Terminals: Ceramic standoff type.

Terminal height: 1.06 inch maximum.

Weight: 30 pounds maximum.

Operating temperature range: -55°C to $+140^{\circ}\text{C}$.

Terminal strength: MIL-STD-202, method 211, test condition A, 5.0 pounds.

Dielectric withstanding voltage:

At sea level:

(1-2) (5-6) (9-10) 1,000 volts dc.
(3-4) (7-8) (11-12): 500 volts dc.

At barometric pressure:

(1-2) (5-6) (9-10). 900 volts dc.
(3-4) (7-8) (11-12): 455 volts dc.

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Electrical characteristics

No load. With 226 volts rms, 400 Hz, 3-phase across (1-2) (5-6) (9-10).

Voltage across (3-4) (7-8) (11-12): 17 volts maximum.

Rated load. With 226 volts rms, 400 Hz, 3 phase across (1-2) (5-6) (9-10), the voltage across (3-4) (7-8) (11-12) shall be 14 volts ± 0.5

Polarity: Additive with terminals 2 and 3, 6 and 7; 10 and 11 connected.

Temperature rise: 45°C maximum with 226 volts rms ± 5 percent, 400 Hz, 3 phase across (1-2) (5-6) (9-10) at an ambient temperature of 85°C.

Salt spray. The transformers shall be subjected to a 20 percent salt spray solution for 50 hours.

(A) Quality assurance provisions.

Qualification inspection: Not applicable.

Quality conformance inspection: Groups A and B tests of MIL-T-27 shall be applicable.

Marking location: See figure 1.

Part number: M27/138-01.

CONCLUDING MATERIAL

Custodians:

Army - ER
Navy - EC
Air Force - 85

Review activities.

Army - MI
Navy - OS, SH
Air Force - 17, 99
DLA - ES

User activities:

Army - AR, ME
Navy - AS, MC
Air Force - 19

Preparing activity:

Army - ER

Agent:

DLA - ES

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